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## WHAT IS CLAIMED IS:

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An image formation apparatus developing an electrostatic latent image with a two-component developer consisting of magnetic carriers and toners by using a development apparatus and a latent image 10 supporter including a filler in an outermost layer thereof, the development apparatus having a developer supporter, which has an internally fixed magnetic body and rotates while supporting a developer on a surface thereof, and a developer quantity controller controlling a quantity of the developer which is 15 supported by the developer supporter facing the magnetic body by controlling a height of magnetic brushes and consisting of materials having rigidity or rigidity and magnetic properties,

wherein a ratio (Gp/Gd) of a development gap to a doctor gap between the developer supporter and the controller is from 0.7 to 1.0, and a weight-averaged particle diameter of a developer carrier is from 20 to  $60\mu m$ .

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2. The image formation apparatus as claimed in claim 1, wherein surface roughness Rz of a development sleeve is from 10 to 30 $\mu m$ .

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The image formation apparatus as claimed in claim 1, wherein a surface of the development
 sleeve is processed by sand blasting.

4. The image formation apparatus as claimed in claim 1, wherein a ratio (D/Rz) of the weight-averaged particle diameter (D) of the developer carrier to surface roughness (Rz) of the development sleeve satisfies a relation 2 ≤ D/Rz ≤ 3.

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5. The image formation apparatus as claimed in claim 1, wherein the filler included in the outermost layer of the latent image supporter is formed by a metal oxide.

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6. The image formation apparatus as claimed in claim 1, wherein the outermost layer of the latent image supporter includes a charge transfer material.

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7. The image formation apparatus as claimed in claim 6, wherein the charge transfer material is a polymer having electron-donating groups.

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8. The image formation apparatus as claimed in claim 1, wherein the outermost layer of the latent image supporter includes an organic compound of which acid value is from 10 to 40 (mgKOH/g).

9. The image formation apparatus as claimed in claim 1, wherein a charge generating material included in the latent image supporter is a titanylphthalocyanine having at least a maximum diffraction peak at 27.2° as a diffraction peak at Bragg angle  $2\theta$  ( $\pm 0.2^{\circ}$ ) for characteristic X-ray of CuK $\alpha$ .

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10. The image formation apparatus as claimed in claim 1, wherein the charge generating material included in the latent image supporter is an azo pigment represented by the following structural formula (A):

$$Cp_2-N=N-Cp_1$$
 $R_{201}$ 
 $R_{202}$ 
 $R_{202}$ 
 $R_{203}$ 

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wherein Cp<sub>1</sub> and Cp<sub>2</sub> are coupler residues, which are identical or different from each other;

25 wherein  $R_{201}$  and  $R_{202}$  are respectively selected from a

group consisting of hydrogen atom, halogen atom, alkyl groups, alkoxy groups, and cyano group and are identical or different from each other; and Cp<sub>1</sub> and Cp<sub>2</sub> are represented by the following structural formula (B):

HO CON 
$$R_{203}$$
  $R_{205}$   $R_{206}$   $R_{206}$   $R_{207}$   $R_{208}$   $R_{207}$   $R_{208}$   $R_{207}$ 

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wherein R<sub>203</sub> is selected from a group consisting of hydrogen atom, alkyl groups such as methyl group and ethyl group, and aryl groups such as phenyl group; and

R<sub>204</sub>, R<sub>205</sub>, R<sub>206</sub>, R<sub>207</sub>, and R<sub>208</sub> are respectively selected from a group consisting of hydrogen atom, nitro group, cyano group, halogen atom such as fluorine, chlorine, bromine, and iodine, trifluoromethyl group, alkyl groups such as methyl group and ethyl group, alkoxy groups such as methoxy group and ethoxy group, dialkylamino group, and hydroxyl group; and Z represents an atom group required for forming a

substituted or non-substituted aromatic carbon ring

or a substituted or non-substituted aromatic heterocyclic ring.

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11. The image formation apparatus as claimed in claim 1, wherein a surface of a conductive supporter of the latent image supporter is anodized.

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12. The image formation apparatus as claimed in claim 1, wherein a charger contacts or is closely arranged to the latent image supporter.

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13. The image formation apparatus as claimed in claim 12, wherein a size of an air gap between the charger and the latent image supporter is equal to or less than  $200\mu m$ .

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14. The image formation apparatus as claimed in claim 12, wherein an alternating current component is superposed on a direct current component in the charger to provide a charge to the latent image supporter.

15. The image formation apparatus as claimed in claim 1, wherein zinc stearate is applied on the latent image supporter.

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16. The image formation apparatus as claimed in claim 15, wherein zinc stearate powder is included in the toner provided to a development area.